

EFFECTIVE DOWNWIND MESSAGE WORKSHEET

For use of this form, see FM 3-3-1; the proponent agency is TRADOC

TIME OF WIND MEASUREMENT (DATE-TIME GROUP) D D t t t t _____
DATA AND CALCULATIONS

MESSAGE LINE	YIELD (KT)	CLOUD-TOP HEIGHT (METERS)	CLOUD-BOTTOM HEIGHT (METERS)	2/3 STEM HEIGHT (METERS)	① DISTANCE OF GZ/CB RADIAL LINE (KM)	EFFECTIVE WIND SPEED-sss (KMPH) $\frac{①}{1} \times 1 = \text{sss}$ TIME OF FALL ROUND OFF TO NEAREST KILOMETER PER HOUR	② AZIMUTH OF GZ/CT RADIAL LINE (DEGREES)	③ AZIMUTH OF GZ/2/3 STEM RADIAL LINE (DEGREES)	EFFECTIVE DOWNWIND DIRECTION-ddd (DEGREES) SUM OF $\frac{②+③}{2} = \frac{② \text{ AND } ③}{2} = \text{ddd}^1$	WARNING AREA ANGLE
A	2	4,900	2,600	1,700	_____	_____ X 1.136 = _____	_____	_____	_____ = _____ = _____ 2	_____
B	5	7,100	4,400	2,800	_____	_____ X 0.758 = _____	_____	_____	_____ = _____ = _____ 2	_____
C	30	11,600	7,700	5,100	_____	_____ X 0.455 = _____	_____	_____	_____ = _____ = _____ 2	_____
D	100	14,400	9,300	6,200	_____	_____ X 0.385 = _____	_____	_____	_____ = _____ = _____ 2	_____
E	300	16,700	11,000	7,400	_____	_____ X 0.333 = _____	_____	_____	_____ = _____ = _____ 2	_____
F	1,000	21,600	13,500	9,000	_____	_____ X 0.286 = _____	_____	_____	_____ = _____ = _____ 2	_____
G	3,000	26,250	15,800	10,500	_____	_____ X 0.250 = _____	_____	_____	_____ = _____ = _____ 2	_____

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ZULU	DDtttt	_____	_____	_____	_____	_____	_____	_____	_____
ALFA	dddsss	_____	_____	_____	_____	_____	_____	_____	_____
BRAVO	dddsss	_____	_____	_____	_____	_____	_____	_____	_____
CHARLIE	dddsss	_____	_____	_____	_____	_____	_____	_____	_____
DELTA	dddsss	_____	_____	_____	_____	_____	_____	_____	_____
ECHO	dddsss	_____	_____	_____	_____	_____	_____	_____	_____
FOXTROT	dddsss	_____	_____	_____	_____	_____	_____	_____	_____
GOLF	dddsss	_____	_____	_____	_____	_____	_____	_____	_____

¹ When the azimuth of the ground zero/cloud-top radial line ② or the azimuth of the ground zero/2/3 stem radial line ③ falls in the first quadrant (0° to 90°) and the other falls in the fourth quadrant (270° to 360°), result of $\frac{②+③}{②}$ will be the back azimuth of the effective downwind direction. In this case, determine ddd by the following method: If result is greater than 180°, subtract 180°; If result is less than 180°, add 180°. Enter in the effective downwind message.